CLAIMS

1. (currently amended) A method of aligning a substrate to an exposure system, the method comprising:

disposing a patterned substrate on a stage of an exposure system, the exposure system having an alignment routine including;

locating a first point of interest on the patterned substrate, the first point of interest being within a single die of a semiconductor wafer;

scanning a first area on the patterned substrate proximate the first point of interest for a first unique feature within the single die;

defining a periodicity for the patterned substrate, the periodicity corresponding to the scan area of a raster movement used in locating the first unique feature;

locating a second point of interest on the patterned substrate based on the periodicity;

scanning a second area on the patterned substrate proximate the second point of interest, based on the defined periodicity used in locating the first unique feature, for a second unique feature corresponding to the first unique feature, wherein the first unique feature is saved as an alignment image for use in locating the second unique feature in the second area;

gathering alignment data with respect to the patterned substrate from the scanning of the first area on the patterned substrate proximate the first point of interest for the first unique feature and the scanning of the second area on the patterned substrate proximate the second point of interest for the second unique feature corresponding to the first unique feature; and

determining substrate position relative to the exposure system from the gathered alignment data.

2. (original) The method as recited in claim 1, further comprising using the alignment data for aligning the substrate.

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3. (original)   The method as recited in claim 1, further comprising exposing the substrate with the exposure system.

4. (cancelled)

5. (original)   The method as recited in claim 1, wherein said first and second unique features include alignment marks on the substrate.

6. (original)   The method as recited in claim 1, wherein gathering alignment data includes mapping first and second points of interests and corresponding unique features to determine an orientation of the substrate.

7. (cancelled)

8. (cancelled)

9. (original)   The method as recited in claim 1, wherein the alignment routine is configured to provide a path for automatic correction should the alignment routine fail to align.

10. (original)   The method as recited in claim 1, wherein the substrate comprises a plurality of exposure fields, wherein the method comprises at least one of inspecting and measuring at least one point of interest in each field of a plurality of exposure fields.

11. (original)   The method as recited in claim 1, wherein the substrate comprises a plurality of exposure fields, wherein each exposure field comprises at least one unique feature.

12-20.   (cancelled)